

H27-A-01 (Specialized Research A)

## **Study Related to Structuring for the Purpose of Development of an Inclusive Education System – Creation of Guidelines (Draft) for Creating a System at School -**

**[Research period]** FY2015**[Principal researcher]** SASAMORI Hiroki**[Summary]**

This research was aimed at examining the content that should be focused on related to establishing systems for the construction of an inclusive education system at schools, referring to initiatives at institutions cooperating with the research, information collected from Ministry of Education, Culture, Sports, Science and Technology model business areas and school sites, related literature, and trends in foreign countries, etc., and then providing this information to school sites. It is important to engage in establishing systems at schools as an organizational initiative for the school as a whole based on a common understanding among teachers, so the information was shown in a way that would be as clear as possible for all teachers.

The information was broadly divided into three categories based on importance and precedence, etc.: “what should be done when establishing systems at schools,” “Q&A regarding establishing

systems for the construction of an inclusive education system,” and “fundamental knowledge that should be understood regarding an inclusive education system.” As for the “Q&A regarding establishing systems for the construction of an inclusive education system” in particular, information regarding matters that are not clear, matters that should be better understood, and potential issues at education sites, etc. was compiled in a “Q&A” format in which 35 questions were answered from eight perspectives. The questions are answered and explanations are added.

The information that was examined was compiled into guidelines for establishing systems at schools (draft proposal), and an effort was made to spread this at education sites as a reference guide for establishing systems for the construction of an inclusive education system at regions (municipalities) and schools in the future.

**[Keywords]**

Inclusive education system, establishing systems at schools, guidelines

H27-A-02 (Specialized Research A)

## **Practical Research on Curriculums at School and Classes for Special Needs Education That Contribute to the Future Development of Special Needs Education**

**[Research period]** FY2014-2015**[Principal researcher]** NAGANUMA Toshio**[Summary]**

In this research, the curriculums of schools for special needs education and special classes were studied, based on research regarding curriculums that have been implemented by the National Institute of Special Education thus far.

It is thought that at schools for special needs education, appropriately assessing the organizing and implementing curriculums that meet various educational needs is important in the context of improving curriculums, and as such, the assessment of curriculums was examined. Through a questionnaire survey targeting schools for special needs education across the country and a survey involving visits to institutions cooperating with the research (schools for special needs education), the current status of, and issues related to the assessment of curriculums were clarified. In addition, perspectives and methods related to the assessment of

curriculums were organized and shown.

In order to clarify issues related to special classes associated with handling the diversity of children enrolled in classes and the expertise of the teachers in charge, the organization and implementation of curriculums were examined. Qualitative data was collected from surveys based on interviews with the supervising teachers of special classes, and light was shed on the actual condition of initiatives related to the organization of the curriculums of special classes and the current status of, and issues related to supervising teachers. Through the collection of data from, and discussions with city education committee representatives, important concepts related to the organization and implementation of curriculums for special classes and examples of specific initiatives were shown.

**[Keywords]**

Curriculums, schools for special needs education, special classes, organization, implementation, assessment

H27-A-03 (Specialized Research A)

## Comprehensive Research on the Application of ICT for the Education of Children with Disabilities

### -The Collection and Organization of Examples of the Utilization of Assistive Equipment and Other Teaching Materials-

**[Research period]** FY2014-2015

**[Principal researcher]** KANAMORI Katsuhiko

**[Summary]**

This research shows the status of ICT utilization at research institutes overall in order to summarize and recap current midterm specification research entitled “research regarding the utilization of ICT in special-needs education.” As for the current status of ICT utilization in Japan, a survey was conducted on ICT utilization at schools for special needs education nationwide, and a survey was conducted on the status of ICT utilization in special needs education at elementary, junior high, and high schools. In the surveys, information was collected on the utilization status of

tablet computers, wireless LAN, electronic blackboards, and digital textbooks, etc., and onsite surveys were conducted based on the results to collect information regarding actual examples of usage. The survey results were organized and examined, and practical examples of the utilization of ICT devices, etc. were organized. Furthermore, the current status of, and issues related to ICT utilization in education were summarized separately for each disability type.

**[Keywords]**

ICT utilization, teaching materials such as devices to support learning, nationwide survey, utilization examples, status of development

H27-B-01 (Specialized Research B)

## Research on Appropriate Digital Textbook Formats and the Utilization of Digital Textbook Data in the Education of Children with Visual Impairments

### -Based on Current Conditions and Issues in Japan and Surveys of Conditions Abroad-

**[Research period]** FY2014-2015

**[Principal researcher]** TANAKA Yoshihiro

**[Summary]**

In 2011, the Ministry of Education, Culture, Sports, Science and Technology announced a “Vision for ICT in Education,” and it hoped that information and communications technology (ICT) will be effectively utilized in special-needs education. In particular, ICT devices—represented by tablet computers—are being increasingly used for digital textbook data, etc. in education for visually-impaired persons, and it is expected that these devices will play an increasingly significant role in the future.

This research proposes methods for the effective utilization of

digital textbook data in education for visually-impaired persons based on surveys on conditions in foreign countries that have been taking pioneering initiatives in this area, etc. The research also attempts to verify the modality of browsing viewers that children with low vision use when looking at digital textbooks, based on trials with current models.

In addition, proposals are made regarding the modality of digital textbooks for children that make use of braille, in terms of functions to add and matters to consider.

**[Keywords]**

Visual impairments, digital textbook data, digital textbooks, children with low vision, braille-using children

H27-B-02 (Specialized Research B)

## **Practical Research on the Enhancement of Course Instruction and Activities to Promote Independence in Education for Children with Hearing Impairments –A Quest for the Continuity and Sharing of Expertise from the Perspective of Teaching Materials Use–**

**[Research period]** FY2014-2015**[Principal researcher]** HARADA Kimihito**[Summary]**

Based on the results of a “nationwide survey on the current status of the possession and utilization of teaching materials at schools for special needs educations (for hearing-impaired persons)” that was conducted in FY2012, class-based research regarding the selection and utilization of teaching materials for the subjects of Japanese language and arithmetic/mathematics and for independence activities was conducted in collaboration with six institutions cooperating with the research. The following insights were gained. In the area of Japanese language, the research showed the importance of understanding actual conditions, predicting the difficulty that hearing-impaired children will have with reading teaching materials, and initiatives inside and outside of the subject of Japanese language ranging from before to after teaching units. In the area of arithmetic/mathematics, the research showed the

importance of instructors giving encouragement regarding taking an interest in mathematical matters, having an awareness of the fun of learning and the good qualities of mathematics, and making use of mathematics in understanding day-to-day matters. In the area of independence activities, the research showed the need for systematic guidance based on developmental stage and the utilization of individual educational support plans.

In addition, based on the building of an inclusive education system, materials to increase understanding and awareness were prepared regarding guidance for hearing-impaired children targeting the supervisors of special classes attended by hearing-impaired children, and special support services in resource rooms (hearing-impairment) and regular classes.

**[Keywords]**

Education for hearing-impaired persons, utilization of teaching materials, research on classes, guidance of subjects, independence activities

H27-B-03 (Specialized Research B)

## **Research on Utilization of the Resource Center Functions of Special Needs Education Schools for the Education of Students with Physical/Motor Disabilities at Elementary and Lower Secondary Schools –Taking the Needs of Elementary and Lower Secondary Schools into Consideration–**

**[Research period]** FY2014-2015**[Principal researcher]** TOKUNAGA Akio**[Summary]**

This research focuses on the utilization of the functions as a resource center of schools for special needs education aimed at guidance for physically-disabled children enrolled at elementary and junior high schools, reveals the modality of utilization on the side of elementary and junior high schools and the modality of support on the side of schools for special needs education, and introduces specific examples. On the side of elementary and junior high schools, the research shows: (i) an evaluation of the learning difficulties and support needs of physically-disabled children, (ii) appropriate learning arrangements, (iii) the improvement and

enhancement of learning environments, (iv) the elimination of anxiety concerning expertise improvement and guidance, (v) the statements regarding the possibility of acquiring and utilizing information on development and courses, and (vi) the necessity of the development of systems at schools and the clarification of positioning by installation personnel. On the side of schools for special needs education, the research shows: (i) the development of systems at schools that promote the function as a resource center, (ii) the positioning of school management policies and special needs education promotion plans, etc. for installation personnel, (iii) grasping the situation of physically-disabled children enrolled in elementary and junior high schools within support areas, (iv) concrete and effective support in accordance with the situation of

elementary and junior high schools, (v) the expertise of supervisors, including initiatives related to handling subject guidance and increasing expertise, (vi) collaboration with relevant organizations and personnel of other occupations, and responding at early stages, (vii) raising understanding and awareness and improving request procedures, (viii) the necessity of holding training workshops and

building networks, and the (ix) the possibility of special support services in resource rooms.

**[Keywords]**

Physical disabilities, elementary and junior high schools, function as a resource center, schools for special needs education, special classes

H27-B-04 (Specialized Research B)

## **Research Related to the Educational Needs of Children with Chronic Health Conditions in the Context of Development of an Inclusive Education System, Reasonable Accommodation, and Preparation of Fundamental Environments**

**[Research period]** FY2014-2015

**[Principal researcher]** KUSAKA Naomi

**[Summary]**

In this research, a survey was conducted on teachers at schools for special needs education (for health impairment), taking into consideration the construction of an inclusive education system, and the educational needs of children with chronic diseases—along with related support and concerns—were once again classified and organized. Furthermore, the modality of basic environmental improvements was examined, centering on the functions of schools for special needs education as a resource center (for health impairment). As a result, the educational needs of children with chronic diseases were organized and classified into the five categories of “learning,” “self-management,” “interpersonal relationships,” “state of mind,” and “cooperation,” and 14 related subcategories. It was thought that this information could be used when understanding and examining the actual condition of children in the process leading up to a decision regarding, and the provision of reasonable accommodation, as the minimum perspective that

teachers should ascertain when assessing the educational needs of children with chronic diseases, which are considered to be highly individualized and include illness-related needs. Furthermore, putting into practice the functions of the schools for special needs education as a resource center (for health impairment), which were institutions cooperating with the research, was an initiative in line with regional needs, and this contributed to the development of diverse and flexible mechanisms. Based on this, a guidebook entitled “Guidebook for Teachers: Guide to Support for Children with Illnesses” (draft proposal) was prepared as a basic document contributing to examination regarding, and the provision of reasonable accommodation for children with chronic diseases who are enrolled at elementary and junior high schools, etc.

**[Keywords]**

Children with chronic diseases, education for children with health impairment, educational needs, reasonable accommodation, basic environmental improvements, functions of schools for special needs education as a resource center (for health impairment)

H27-B-05 (Specialized Research B)

## **Research on Activities to Promote Independence of Children with Autism Enrolled in Classes for Special Needs Education**

**Research period]** FY2014-2015

**[Principal researcher]** YANAGISAWA Akiko

**[Summary]**

In this research, first of all, a questionnaire survey was conducted in order to uncover the current status of, and issues related to guidance regarding the independence activities of children with autism in special classes at elementary and junior high schools (special classes for persons with autism and

emotionally-disturbed persons, and special classes for persons with intellectual disabilities). The results revealed: (i) the importance of promoting understanding regarding activities for independence among supervisors of special classes, (ii) the importance of establishing teaching plans and guidance goals related to activities for independence, (iii) the importance of guidance that enables children with autism to view themselves in a positive manner, and (iv) the necessity of reviews regarding guidance by teachers and

the importance of self-assessments by children, etc.

In addition, based on information collected from questionnaire surveys and institutions cooperating with the research, etc. and related practical examples, issues related to guidance regarding activities for independence by supervisors of special classes were identified. Based on this, nine key points were compiled that supervisors of special classes who have few years of experience or have been newly appointed should first of all keep in mind when putting together lessons regarding activities for independence. These were divided into three areas: (i) narrowing skills that individual children should acquire (targets), (ii) giving guidance taking into consideration the disability characteristics and cognitive characteristics of children with autism, and (iii) the importance of

reviews regarding guidance. Furthermore, specific explanations were given regarding each of the key points based on practical examples at the institutions cooperating with the research.

Overall, this research considered the significance of giving guidance in special classes assigning time for activities for independence and what teachers should keep in mind when preparing lessons on activities for independence for children with autism. It also proposed initiatives for the future aimed at maintaining and improving the expertise of supervisors of special classes.

**[Keywords]**

Special classes, autism, guidance regarding activities for independence

H27-B-06 (Specialized Research B)

**Research on the Current Status and Future Form of Instructional Settings and Assistance for Children with Developmental Disabilities  
–A Focus on Surveys of Special Needs Service in Resource Rooms–**

**[Research period]** FY2014-2015

**[Principal researcher]** UMEDA Mari

**[Summary]**

This research looked at the current status of support systems and places of guidance for children with developmental disabilities, the current status of the establishment and utilization of special support services in resource rooms, and the issues and initiatives of municipalities based on a nationwide survey of municipal boards of education. The research was aimed at setting forth a single direction for the modality of guidance going forward, taking into consideration the construction of an inclusive education system related to guidance for children with developmental disabilities based on an analysis of results. Specifically, three types of surveys were carried out: a nationwide inventory survey making use of questionnaires, a survey making use of telephone calls and e-mails with targets narrowed based on survey results, and a survey

making use of visits. The results were considered based on the pillars of “special support services in resource rooms as places of guidance for children with developmental disabilities,” “guidance and support for children with developmental disabilities at regular classes,” “the effective operation of special support services in resource rooms,” and “systems to assist guidance and support for children with developmental disabilities.”

The nationwide fact-finding survey on this occasion showed that population size has a significant effect on infrastructure development related to support for children with developmental disabilities. It was also revealed that municipalities are making use of their unique characteristics as they search for ways to solve their issues.

**[Keywords]**

Developmental disabilities, special support services in resource rooms, population size, regular classes, support systems

H27-K-01 (Collaborative research)

## **Preparation and Evaluation of In-School Tactile Guide Maps for Children with Visual Impairments**

**[Research period]** FY2013-2015**[Principal researcher]** DOI Kouki**[Summary]**

At school sites such as special-needs schools (for visual impairment), it is important to enhance “information accessibility tools” that help visually-impaired children obtain the information that they need at school facilities. For example, some teachers and children with visual impairments at school sites have been calling for tactile maps (tactile maps at schools) that make it possible to ascertain the locations of classrooms, etc. in the buildings of schools for special needs education (for visual impairment). It is not easy to gain information about spaces from the sense of touch alone, so it is necessary to effectively utilize audio information in addition to tactile maps in order to improve the quality of information accessibility. In light of this situation, in this research, tactile maps with an additional voice output function were prepared

at schools, making use of a braille and tactile map creation device that the researchers had been developing, in order to examine the modality of tactile maps at schools that show the locations of classrooms, etc. in the buildings of schools for special needs education (for visual impairment) that children with visual impairments are attending. The usability of the prepared tactile maps at schools was assessed by teachers (totally blind or with low vision) at schools for special needs education (for visual impairment), and the maps received high ratings. The research thus provided information that will be useful when considering the modality of user-friendly tactile maps at schools.

**[Keywords]**

Visual impairments, tactile maps at schools, voice output, braille and tactile map creation methods, schools for special needs education (for visual impairment)

H27-K-02 (Collaborative research)

## **Research on the Development of Networks for Assistive Equipment Use in Special Needs Education**

### **–Development of Assistive Networks in Collaboration with Technical Colleges –**

**[Research period]** FY2013-2015**[Principal researcher]** KANAMORI Katsuhiko**[Summary]**

At school sites such as special-needs schools (for visual impairment), it is important to enhance “information accessibility tools” that help visually-impaired children obtain the information that they need at school facilities. For example, some teachers and children with visual impairments at school sites have been calling for tactile maps (tactile maps at schools) that make it possible to ascertain the locations of classrooms, etc. in the buildings of schools for special needs education (for visual impairment). It is not easy to gain information about spaces from the sense of touch alone, so it is necessary to effectively utilize audio information in addition to tactile maps in order to improve the quality of information accessibility. In light of this situation, in this research,

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**[Keywords]**

Utilization of support devices, technical colleges, networks, development, teaching materials

H27-K-03 (Collaborative research)

## Study on Comprehensive Support for Education, Healthcare and Welfare to Children with Cancer

**[Research period]** FY2014-2015

**[Principal researcher]** NIIHIRA Shizuhiko

**[Summary]**

Based on the Basic Plan to Promote Cancer Control Programs, in February 2013, the Ministry of Health, Labor and Welfare designated 15 hospitals as “childhood cancer base hospitals.” In response to this, in a March 2013 notification entitled “Enhancing education for children receiving medical treatment for an illness,” the Ministry of Education, Culture, Sports, Science and Technology called not only for the enhancement of education during hospitalization but also the enhancement of education after hospitalization, and it connected this with the construction of an inclusive education system, which it is currently carrying out. Furthermore, joint research was carried out with the objective of enhancing education for children with childhood cancer, consisting of “research on the intellectual abilities of, and educational support for children who are undergoing treatment for childhood cancer” and “survey research on the current status of schools/classes at childhood cancer base hospitals.”

The need for research on intellectual abilities centering on cognitive function was already being addressed in foreign countries, and taking into consideration this need in education in terms of literature, a long-term follow-up was introduced based on

project research that is currently underway and the WISC-IV intelligence tests of children with childhood cancer.

Receiving assistance from 15 schools/classes at childhood cancer base hospitals (with special classes at elementary and junior high schools collectively counted as one school), a fact-finding survey was carried out based on inquiries with questionnaires and visits. Facts were obtained regarding the established schools and classes, trends regarding the enrollment of children, collaboration with former schools, collaboration with hospitals, and the current status of follow-ups, etc., and specific information was compiled regarding the content of education and concerns related to guidance, etc. This is information that can be used for education not only during hospitalization but also after hospitalization. Examining the literature of foreign countries and identifying issues related to support after returning to school, support for high school students, and follow-ups, etc., recommendations were made regarding the need for new roles for teachers and the need for increased awareness regarding education for children with childhood cancer.

**[Keywords]**

Childhood cancer base hospitals, schools/classes at hospitals, WISC-IV intelligence test